

Title (en)  
METHOD AND APPARATUS FOR IMPROVING DOWNLINK CONTROL INFORMATION, DCI, IN A WIRELESS COMMUNICATION SYSTEM

Title (de)  
VERFAHREN UND VORRICHTUNG ZUR VERBESSERUNG VON DOWNLINK-STEUERUNGSINFORMATIONEN, DCI, IN EINEM  
DRAHTLOSKOMMUNIKATIONSSYSTEM

Title (fr)  
PROCÉDÉ ET APPAREIL PERMETTANT D'AMÉLIORER DES INFORMATIONS DE COMMANDE DE LIAISON DESCENDANTE, DCI, DANS UN  
SYSTÈME DE COMMUNICATION SANS FIL

Publication  
**EP 2993951 A1 20160309 (EN)**

Application  
**EP 15183512 A 20150902**

Priority  
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• US 201514829363 A 20150818

Abstract (en)  
A method and apparatus are disclosed for improving downlink control information in a wireless communication system. The method includes receiving (605) a first control signaling indicating a first transmission to a first UE, wherein the first control signaling is identified by a first identification used by the first UE. The method also includes receiving (610) a second control signaling indicating a second transmission to a second UE, wherein the second control signaling is identified by a second identification used by the second UE. The method further includes decoding (615) the first transmission based on information provided by at least the first control signaling and the second control signaling, wherein radio resource used by the first transmission is indicated by the second control signaling but is not indicated by the first control signaling.

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CPC (source: EP US)  
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Citation (search report)  
• [E] WO 2015167714 A1 20151105 - INTEL IP CORP [US]  
• [A] US 2013196701 A1 20130801 - TIIROLA ESA TAPANI [FI], et al  
• [A] WO 2012011658 A2 20120126 - LG ELECTRONICS INC [KR], et al  
• [A] BENJEBBOUR ANASS ET AL: "Concept and practical considerations of non-orthogonal multiple access (NOMA) for future radio access", 2013 INTERNATIONAL SYMPOSIUM ON INTELLIGENT SIGNAL PROCESSING AND COMMUNICATION SYSTEMS, IEEE, 12 November 2013 (2013-11-12), pages 770 - 774, XP032541968, DOI: 10.1109/ISPACS.2013.6704653

Cited by  
CN110392371A; CN107911166A; CN111245498A; EP3488541A4; EP3264647A4; US10142981B2; WO2020055355A3; US11039470B2; US10771127B2; WO2023077776A1; TWI715837B

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